Abstract

Pattern synthesis is one of the most important aspects in antenna design. Arrays are more flexible to produce desired radiation characteristics. Difference patterns are usually generated with conventional techniques and there is less control on side lobes. In view of this, optimization techniques are applied to synthesize and produce such patterns optimally. The simulated patterns are produced for different array configurations and the patterns are presented using Cuckoo Search Algorithm (CSA) and Accelerated Particle Swarm Optimization (APSO).

References


Index Terms

Computer Science Algorithms

Keywords

Difference Pattern, Sidelobe Reduction, Antenna Array, Cuckoo Search Algorithm (CSA), Particle Swarm Optimization (PSO), Accelerated Particle Swarm Optimization (APSO)